

REMARKS

Claims 14-20 and 22-24 are presented. The Office Action appears to have erroneously omitted claim 22 from the pending claim list.

Applicants appreciate the Examiner's helpful comments provided in telephone discussions with Applicants' undersigned representative for purposes of clarifying the status of the application. During the discussions, the following issues were addressed:

Rejection Under 35 U.S.C. 102(b)

Claims 14 and 16 have been rejected under 35 U.S.C. 102(b) as being anticipated by Ashley *et al.*, J. Chem. Soc., 4525-4532, 1960 (hereafter "Ashley"). In particular, the Office Action identified the compound shown on page 4530, second paragraph (2,4-di-p-cyanoanilino-1,3,5-triazine).

Applicants reiterated its previous response to this rejection directed to at least the difference in the substituent corresponding to Applicants' L group. For example, Ashley discloses a cyanoanilino moiety corresponding to Applicants' L group. In Applicants' definition of L as -X-R³, Applicants' define compounds in which the R³ group is a phenyl, pyridinyl, pyrimidinyl, pyrazinyl or pyridazinyl moiety which is ***unsubstituted or substituted with from 2 to 5 substituent groups***. In Ashley, on the other hand, the substituent corresponding to Applicants' R³ moiety is necessarily a ***monosubstituted*** phenyl group. Given this clarification, Applicants appreciate the Examiner's indication during the telephone discussions that the rejection would be reconsidered.

Double Patenting Rejection

Claims 14-22 have been rejected under the judicially created doctrine of obviousness-type double patenting over claims 1-11 of U.S. Patent No. 6,638,932. Although Applicants disagree with this rejection for the reasons stated in its previous response, and given that the claims have been indicated to be otherwise allowable, Applicants submit herewith a terminal disclaimer to obviate the rejection and advance prosecution of the case.

DOCKET NO.: JANS-0035/JAB-1426-USA/DIV
Application No.: 10/649,017
Office Action Dated: February 23, 2005

**PATENT
REPLY FILED UNDER EXPEDITED
PROCEDURE PURSUANT TO
37 CFR § 1.116**

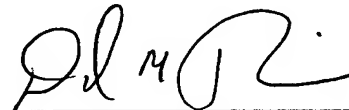
Miscellaneous

Applicants have obtained an English summary for the Kobunshi Kagaku reference previously cited as reference 17 in the Information Disclosure Statement dated December 28, 2004, and in the Applicants' specification at page 2 (the English summary is submitted herewith). Applicants appreciate the Examiner's indication that the reference and summary will be considered and made of record in the present application.

Conclusion

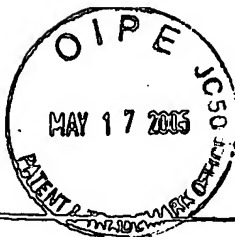
Applicants believe that the foregoing constitutes a complete and full response to the Office Action of record. Accordingly, an early and favorable Action is requested respectfully.

Date: May 17, 2005



David N. Farsiou
Registration No. 44,104

Woodcock Washburn LLP
One Liberty Place - 46th Floor
Philadelphia PA 19103
Telephone: (215) 568-3100
Facsimile: (215) 568-3439



BEST AVAILABLE COPY

English Summaries of the Papers

掲載論文英文要旨

Kobunshi Kagaku, Vol. 30, No. 344 (1973)

[Original Papers]

Influence of Die Angle on Hydrostatic Extrusion of Solid Polyethylene*

Kazuo NAKAYAMA⁰¹ and Hisaaki KANETSUNA⁰¹

⁰¹Research Institute for Polymers and Textiles (Sawatari 4, Kanagawa-ku, Yokohama) [Kobunshi Kagaku, 30 (344), pp. 713-719 (Dec., 1973)]

*Hydrostatic Extrusion of Solid Polymers. I

Hydrostatic extrusion of high-density polyethylene in the solid phase was investigated using dies of various cone angles in terms of effects of the extrusion temperature and the extrusion ratio on the extrusion pressure and the appearance of extrudate. Extrusion pressure-displacement curves could be classified into three groups. Highly oriented extrudates of smooth surfaces were obtained by the steady-state extrusion. For the extrusion at lower temperature with use of a larger angle die, the 'stick-slip' motion was observed. The stick-slip motion caused fluctuations in the diameter of the extrudate along its length. At high extrusion ratio, a drastic stick-slip motion generated cracks in the extruded product. When extrusion was carried out through a small angle die at a constant pressure, an extrudate with an excellent smooth surface was obtained.

KEY WORDS Hydrostatic Extrusion/Polyethylene/Extrudate/Die Angle/Extrusion ratio/Extrusion Pressure/Temperature of Extrusion/Rate of Extrusion/Stick-slip/Degree of Orientation/

Synthesis and Polycondensation of 2,4-Bis(*p*- and *m*-aminoanilino)-6-substituted-*s*-triazine

Yasuo YUKI⁰¹ and Yasushi OSAKA⁰¹

⁰¹Department of Fiber and Polymer, Nagoya Institute of Technology (Gokiso, Showa-ku, Nagoya) [Kobunshi Kagaku, 30 (344), pp. 720-726 (Dec., 1973)]

2,4-Bis(*p*- or *m*-aminoanilino)-6-phenyl (or methyl)-*s*-triazines were synthesized by the reduction of the corresponding dinitro-compounds. 2,4-Bis(*p*- or *m*-aminoanilino)-*s*-triazine was prepared by the reaction of *N*¹, *N*²-bis (aminophenyl) biguanide with methyl formate. New polyamides containing *s*-triazine ring in the main chains (polyamidoguanamines) were synthesized by the low temperature solution polycondensation of the above diamines with terephthaloyl chloride or isophthaloyl chloride. Their preparations and physical properties were discussed.

KEY WORDS Polyamide/*s*-Triazine/Guanamine/Polycondensation/Polyamidoguanamine/

Crack Propagation by Bending Fatigue of Glass Fiber Reinforced Nylon 6 Plastics (The case of notched specimen)

Eiichi JINEN⁰¹ and Megumu SUZUKI⁰¹

⁰¹Kyoto University of Industrial Art and Textile (Matsugasaki, Sakyo-ku, Kyoto) [Kobunshi Kagaku, 30 (344), pp. 727-736 (Dec., 1973)]

In order to clarify the arrest effects by glass fibers and the influence on physical properties of the matrix during drying treatment caused by crack propagation for notched specimen of glass fiber reinforced nylon 6 which containing discontinuous short fibers (FRTP), S-N relation, the relations of crack length and propagating rate~number of repetitions and the stress intensity factor~crack propagating rate were investigated in view points of relationship between glass fiber contents and fiber orientation.

The following results were obtained: The specimen with its long side corresponding to the flow direction had a good nature in arresting fatigue crack propagation. This tendency has improved with increasing fiber contents and was independent on the change in physical properties of the matrix. The specimen with cutting direction perpendicular to the flow direction had less arresting effects than above specimen and had a strong influence of drying treatment on fatigue properties. Therefore, in using of this materials attention had to pay to